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|  | **KS1** | **KS2** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| **Planning investigations – ask questions** | * Ask simple questions
 | * Asking simple questions and recognising that they can be answered in different ways
 | * Ask more relevant questions about a topic.
* Have more awareness of the different types of scientific enquiry.
 | * Ask relevant questions and use different types of scientific enquiries to answer them
* Recognise when a fair test is necessary and introduce the terminology of variables.
 | * Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
* Begin to recognise why controlling variables is necessary.
* Select the most appropriate type of scientific enquiry to answer questions.
* Identify the variables within a test and explain why which ones need to be controlled and why.
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| **Investigating and evidence collection – make observations and take measurements** | * Perform simple tests
* Observe closely and use simple equipment
* Identify and classify
 | * Performing simple tests
* Observing closely, using simple equipment
* Identifying differences, similarities or changes related to simple scientific ideas and processes
 | * Setting up simple practical enquiries, comparative and fair tests
* Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
* Identifying differences, similarities or changes related to simple scientific ideas and processes
 | * Setting up simple practical enquiries, comparative and fair tests
* Investigate, record data, analysing data, presenting findings
* Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
* Identifying differences, similarities or changes related to simple scientific ideas and processes
* Making systematic and careful observations
 | * Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
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| **Recording .and presenting data – gather record and classify data** | * Gather and record data to help in answering questions
* Describe how to identify and group different plants
* Group and sort
* Draw diagrams showing the parts of different plants, including trees
* Compare and contrast familiar plants
 | * Using their observations and ideas to suggest answers to questions
* Gathering and recording data to help in answering questions
* Gathering and recording data to help in answering questions
* Observing and recording, with some accuracy
 | * Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
* Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables
 | * Investigate, record data, analysing data, presenting findings
* Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
* Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
 | * Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
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| **Evaluating and drawing conclusions – answer questions and make conclusions** | * Use observations and ideas to suggest answers to questions
 | * Using their observations and ideas to suggest answers to questions
* Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
 | * Using straightforward scientific evidence to answer questions or to support their findings
* Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
* Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
* Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
 | * Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
* Using straightforward scientific evidence to answer questions or to support their findings
* Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
* Reporting on findings from enquiries, including oral and written explanations
 | * Identifying scientific evidence that has been used to support or refute ideas or arguments
* Using test results to make predictions to set up further comparative and fair tests
* Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
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